Attorney Docket No. DE 040046

IN THE CLAIMS

1. (Currently Amended) A catheter system, comprising:

a first catheter element ~~(1)~~ with at least a first active localizer ~~(4) placed on it~~, wherein a ~~whose~~ spatial position of the first active localizer can be determined; and

a second catheter element ~~(2)~~ with at least a second active localizer ~~(5) placed on it~~, wherein a ~~whose~~ spatial position of the second active localizer can be determined;

wherein the first and the second catheter element are slidably coupled ~~in such a manner that a sliding movement relative to each other is possible~~, and

wherein the first and the second active localizers are used simultaneously to determine the spatial positions of the first and second active localizers with respect to each other.

2. (Currently Amended) A catheter system as claimed in claim 1, ~~characterized in that~~ wherein the first catheter element ~~(1)~~ has a channel running in longitudinal direction, through which the second catheter element ~~(2)~~ is guided.

3. (Currently Amended) A catheter system as claimed in claim 1, ~~characterized in that it comprises~~ further comprising a fixing device ~~(3), by means of which~~ for fixing a position of at least one of the catheter elements ~~(1) can be fixed~~ in a surrounding vessel ~~(7)~~.

4. (Currently Amended) A catheter system as claimed in claim 1, ~~characterized in that~~ wherein at least one of the localizers ~~(4, 5)~~ is a magnetic field sensor in an external magnetic field for determining the spatial position.

5. (Currently Amended) A catheter system as claimed in claim 1, ~~characterized in that~~ wherein at least one of the localizers contains a source for electromagnetic and/or acoustic radiation.

6. (Currently Amended) A catheter system as claimed in claim 1, ~~characterized in that~~ wherein the localizers ~~(4, 5)~~ are arranged ~~such that they are~~ at a distance of less than 10

~~cm, preferably less than 5 cm~~ from each other during [[the]] use of the catheter system.

7. (Currently Amended) A method for navigation of a catheter system in a vascular system ~~(7)~~, wherein the catheter system contains a first and a second catheter element ~~(1, 2)~~, which are coupled to each other such that they can slide with respect to each other and carry at least a first or second active localizer ~~(4, 5)~~ respectively, the method comprising the following steps of:

a) determining [[the]] a spatial position of the first active localizer ~~(4)~~ relative to the vascular system ~~(7)~~; and

b) determining [[the]] a spatial position of the second active localizer ~~(5)~~ relative to the spatial position of the first active localizer ~~(4)~~, wherein the determining steps are performed substantially simultaneously.

8. (Currently Amended) A method as claimed in claim 7, ~~characterized in that~~ wherein the first catheter element ~~(1)~~ is fixed relative to the vascular system ~~(7)~~, while the second catheter element ~~(2)~~ is moved.

9. (Currently Amended) A method as claimed in claim 7, ~~characterized in that an image is generated of the vascular system (7) with the catheter system contained in it and in that~~ wherein the spatial position of the first active localizer ~~(4)~~ relative to the vascular system ~~(7)~~ is determined based on [[this]] an image of the vascular system.

10. (Cancelled)

11. (New) A catheter system as claimed in claim 1, wherein the localizers are arranged at a distance of less than 5 cm from each other during use of the catheter system.